52 Problems in Calculating Composite Functions of Polynomials
(Part 1)

PROBLEMS

1. Let $f(x) = x$ and $g(x) = x - 3$. Find $f(g(x))$.

2. Let $f(x) = x$ and $g(x) = x + 1$. Find $f(g(x))$.

3. Let $f(x) = x + 2$ and $g(x) = x - 3$. Find $f(g(x))$.

4. Let $f(x) = x + 1$ and $g(x) = x + 1$. Find $f(g(x))$.

5. Let $f(x) = x^2$ and $g(x) = x + 1$. Find $f(g(x))$.

6. Let $f(x) = x^2$ and $g(x) = x^2 + 3$. Find $f(g(x))$.

7. Let $f(x) = 1 - x^2$ and $g(x) = 3x - 1$. Find $f(g(x))$.

8. Let $f(x) = 3 + x - x^2$ and $g(x) = x + 1$. Find $f(g(x))$.

9. Let $f(x) = 2 + x$ and $g(x) = x^2$. Find $f(g(x))$.

10. Let $f(x) = 3x - 1$ and $g(x) = 1 - x^2$. Find $f(g(x))$.

11. Let $f(x) = x + 2$ and $g(x) = x - 3$. Find $g(f(x))$.

12. Let $f(x) = x^2$ and $g(x) = x + 1$. Find $g(f(x))$.

13. Let $f(x) = x^2$ and $g(x) = x^2 + 3$. Find $g(f(x))$.

14. Let $f(x) = 1 - x^2$ and $g(x) = 3x - 1$. Find $g(f(x))$.

15. Let $f(x) = 3 + x - x^2$ and $g(x) = x + 1$. Find $g(f(x))$.

16. Let $f(x) = 2 + x$ and $g(x) = x^2$. Find $g(f(x))$.

17. Let $f(x) = 3x - 1$ and $g(x) = 1 - x^2$. Find $g(f(x))$.

18. Let $f(x) = x$. Find $f(f(x))$.

19. Let $f(x) = x^2$. Find $f(f(x))$.

20. Let $f(x) = 1 - x^2$ Find $f(f(x))$.

21. Let $f(x) = 3 + x - x^2$. Find $f(f(x))$.

22. Let $f(x) = 2 + x$. Find $f(f(x))$.

23. Let $f(x) = 3x - 1$. Find $f(f(x))$.

24. Let $g(x) = x + 1$. Find $g(g(x))$.

25. Let $g(x) = x^2 + 3$. Find $g(g(x))$.

26. Let $g(x) = 3x - 1$. Find $g(g(x))$.

27. Let $g(x) = x + 1$. Find $g(g(x))$.

28. Let $g(x) = x^2$. Find $g(g(x))$.

29. Let $g(x) = 1 - x^2$. Find $g(g(x))$.

30. Let $f(x) = x$ and $g(x) = x - 3$. Find $f(g(0))$.

31. Let $f(x) = x^2$ and $g(x) = x + 1$. Find $f(g(0))$.

32. Let $f(x) = x^2$ and $g(x) = x^2 + 3$. Find $f(g(1))$.

33. Let $f(x) = 1 - x^2$ and $g(x) = 3x - 1$. Find $g(f(2))$.

34. Let $f(x) = 3 + x - x^2$ and $g(x) = x + 1$. Find $g(f(3))$.

35. Let $f(x) = 2 + x$. Find $f(f(2))$.

36. Let $g(x) = 1 - x^2$. Find $g(g(1))$.